TESTDOME
AUTOMATED SKILL TESTING

Pre-employment testing of candidates' skills, using samples of actual work.

Back-end Test

Sunshine Caprio

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Result

Status: **PASS**

Completed: Nov 14, 2021

Time: 1h 3min

Total:

79%

Top 19% of all candidates

Breakdown

C#		100%
jQuery		100%
SQLite		50%
Numerical Reasoning		0%

Notes

> demo@testdome.com: The interview with the team was good, they are a good option to hire.
> demo@testdome.com: This candidate has great C# skills.

Question 1   C# . PUBLIC

Score: 100%

Time: **25min 54sec**

Difficulty: Easy

Description:

Write a function that checks if a given sentence is a palindrome. A palindrome is a word, phrase, verse, or sentence that reads the same backward or forward. Only the order of English alphabet letters (A-Z and a-z) should be considered, other characters should be ignored.

For example, *IsPalindrome("Noel sees Leon.")* should return *true* as spaces, period, and case should be ignored resulting with "noelseesleon" which is a palindrome since it reads same backward and forward.

Answer

```
using System;

public class Palindrome
{
    public static bool IsPalindrome(string str)
    {
        string cleanStr = "";
        string reverse = "";

        str = str.ToLower();

        for (int i = 0; i < str.Length; i++)
        {
            if (str[i] >= 'a' && str[i] <= 'z')
                cleanStr += str[i].ToString();
        }

        for (int j = cleanStr.Length - 1; j >= 0; j--)
        {
            reverse += cleanStr[j].ToString();
        }

        return reverse == cleanStr;
    }

    public static void Main(string[] args)
    {
        Console.WriteLine(IsPalindrome("Noel sees Leon."));
    }
}
```
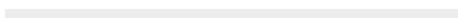
Evaluation

- ✅ Example case: Correct answer
- ✅ Lowercase single word: Correct answer
- ✅ Any case single word: Correct answer
- ✅ Sentence: Correct answer

Question 2

NUMERICAL REASONING . PUBLIC

Score: ▭▭▭▭▭▭ 0%

Time: 2min 45sec

Difficulty: Easy

Description:

How old is John if, in 38 years, he will be 3 times as old as he is today?

Answer **Correct answer** | ☑ Candidate's selection

○ 13

○ 17

◉ **19**

○ 21

◉ 24

○ 38

Question 3

C# . STRINGS . PUBLIC

Score: ████████████████ 100%

Time: 27min 21sec

Difficulty: Hard

Description:

Write a function that finds the zero-based index of the longest run in a string. A run is a consecutive sequence of the same character. If there is more than one run with the same length, return the index of the first one.

For example, *IndexOfLongestRun("abbcccddddcccbba")* should return 6 as the longest run is dddd and it first appears on index 6.

Answer

```csharp
using System;

public class Run
{
    public static int IndexOfLongestRun(string str)
    {
        int bestRun = 0, bestIndex = 0;
        int i, j;
        for (i = 0, j = 0; i < str.Length; i++)
        {
            if (str[i] == str[j])
            {
                if (bestRun < i - j)
                {
                    bestRun = i - j;
                    bestIndex = j;
                }
            }
            else
            {
                j = i;
            }
        }

        return bestIndex;
    }

    public static void Main(string[] args)
    {
        Console.WriteLine(IndexOfLongestRun("abbcccddddcccbba"));
    }
}
```

Evaluation

- ✅ Example case: Correct answer
- ✅ Word with single longest run: Correct answer
- ✅ Word with 200 letters: Correct answer
- ✅ Performance test on a large word: Correct answer

Question 4

JQUERY . THIS . JAVASCRIPT . PUBLIC

Score: 100%

Time: **5min 4sec**

Difficulty: Hard

Description:

Fix the bugs in the JavaScript code without removing the *setTimeout* function. The code currently alerts undefined instead of anchor inner contents.

Answer

```
function registerClickHandler() {
  $('#clickme').click(function() {
    setTimeout(function() {
      alert($('#clickme').html());
    }, 200);
  });
}
```

Evaluation

- ✅ Alert content: Correct answer
- ✅ Alert content and timing: Correct answer

Question 5

SQLITE . CONDITIONS . PUBLIC

Score: 50%

Time: **57sec**

Difficulty: Easy

Description:

A table containing the enrollment year has incorrect data in records with ids between 20 and 100.

Select all queries below that, for the faulty records, set the year to 2015.

Answer   **Correct answer** | ☑ Candidate's selection

☑ UPDATE enrollments SET year = 2015 WHERE id IN (20, 100);

☑ **UPDATE enrollments SET year = 2015 WHERE id >= 20 AND id <= 100;**

☑ **UPDATE enrollments SET year = 2015 WHERE id BETWEEN 20 AND 100;**

☐ UPDATE enrollments SET year = 2015 WHERE id >= 20 OR id <= 100;